TITLE 40 CCA

Outcome Measures of Effectiveness (MOEs)

Revision of mission-related and administrative processes (BPR)

Post Implementation Review (PIR)

Briefing to XYZ Team

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Scope and Objective

- This presentation deals with three elements of performance and results-based management of IT and National Security Systems (NSS)
  - Prescribing outcomes performance measures; defined as measures of effectiveness, MOEs
  - Measuring the MOEs during a Post-Implementation Review
  - Revising mission-related and administrative processes
- The objective is to answer who, what, why and when for MOEs, their measure and process revision
- Additional MOE/PIR information is available at the IT-Community of Interest: http://acc.dau.mil/cca

MOEs Defined

- MOEs are independent of any solution and do not specify performance or criteria.
- The MOE is the criterion by which solutions will be judged during the analysis of material approaches and AoA
- MOEs are a measure of operational success that must be closely related to the objective of the mission or operation being evaluated. For example, the number of enemy submarines sunk or enemy tanks destroyed may be satisfactory MOEs if the objective is to destroy such weapons systems.
- A meaningful MOE must be quantifiable and a measure to what degree the real objective is achieved.

PIR Defined

- A PIR is an analysis of a capability operating in its intended environment, using data collected from various sources to answer the question:

Did we get what we needed, and if not what to do about it?

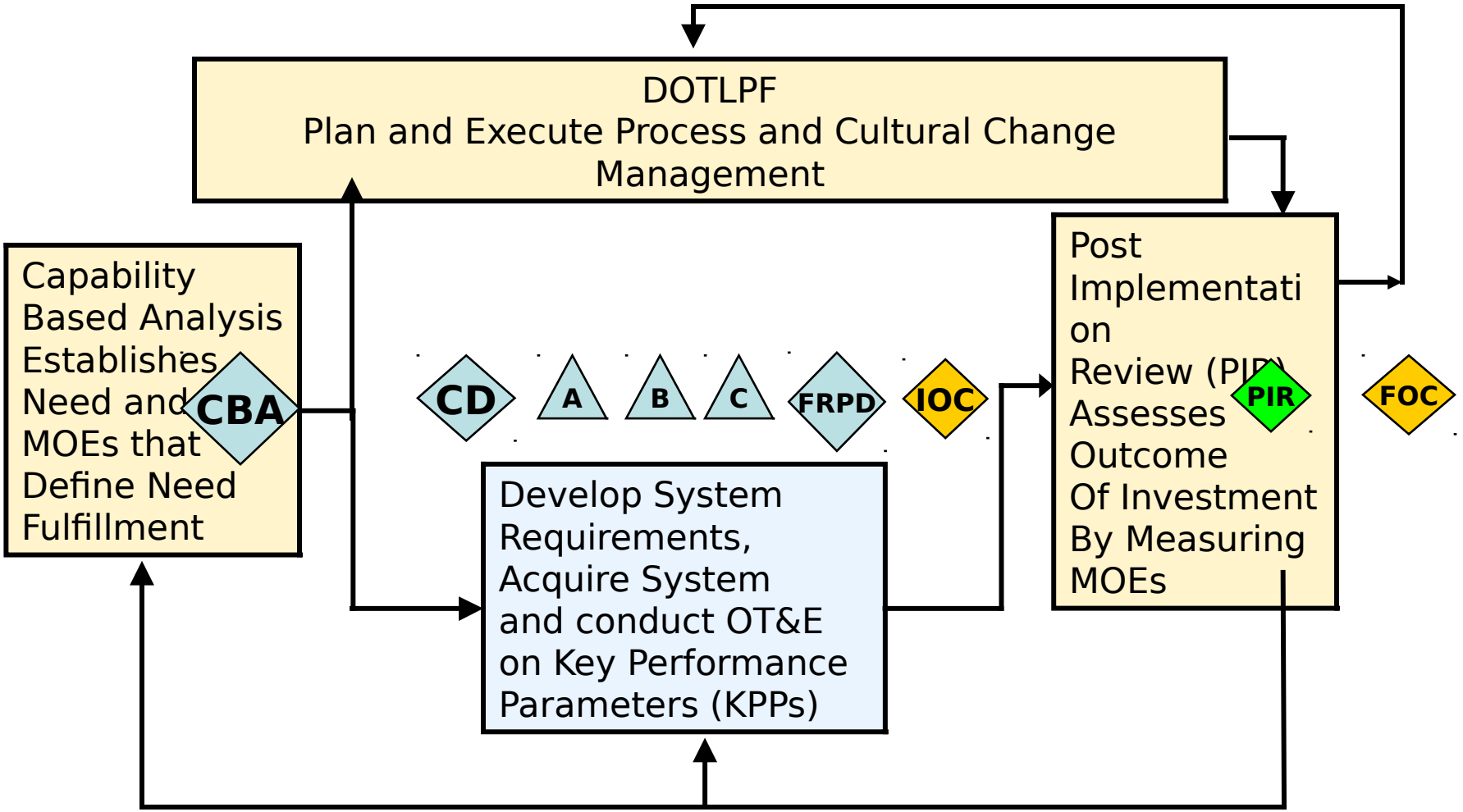
- A PIR is a measurement of the outcome measures of effectiveness (MOEs) assigned to a validated capability by the capability/mission owner
- A capability is achieved when the associated DOTMLPF has been implemented

Process Revision Defined

- Analyze the missions and based on the analysis, revise the mission-related and administrative processes as appropriate before making significant investment in IT/NSS
- The JCIDS DOTLPF is the DoD response

• Doctrine	• Leadership and Education
• Organization	• Personnel
• Training	• Facilities

PIR is the DOTMLPF Evaluation



Statutory Requirements

Title 40 Sec 11313, CCA , (Performance and Results-based Management)

- Establish goals for improving Agency efficiency and effectiveness
- Provide annual status of goals to Congress
- Prescribe IT/NSS outcomes performance measures (MOEs)
- Benchmark against comparable processes and organizations
- Measure how well the outcomes support programs of the Agency (PIR)
- Meet fundamental criteria:
  - Core/priority mission functions for performance by Government
  - No alternative private sector or government source (e-GOV)
- Revise mission-related and administrative processes before investing in IT/NSS
- Ensure information assurance

+ Annual Appropriations Legislation implemented by DoD CIO memoranda

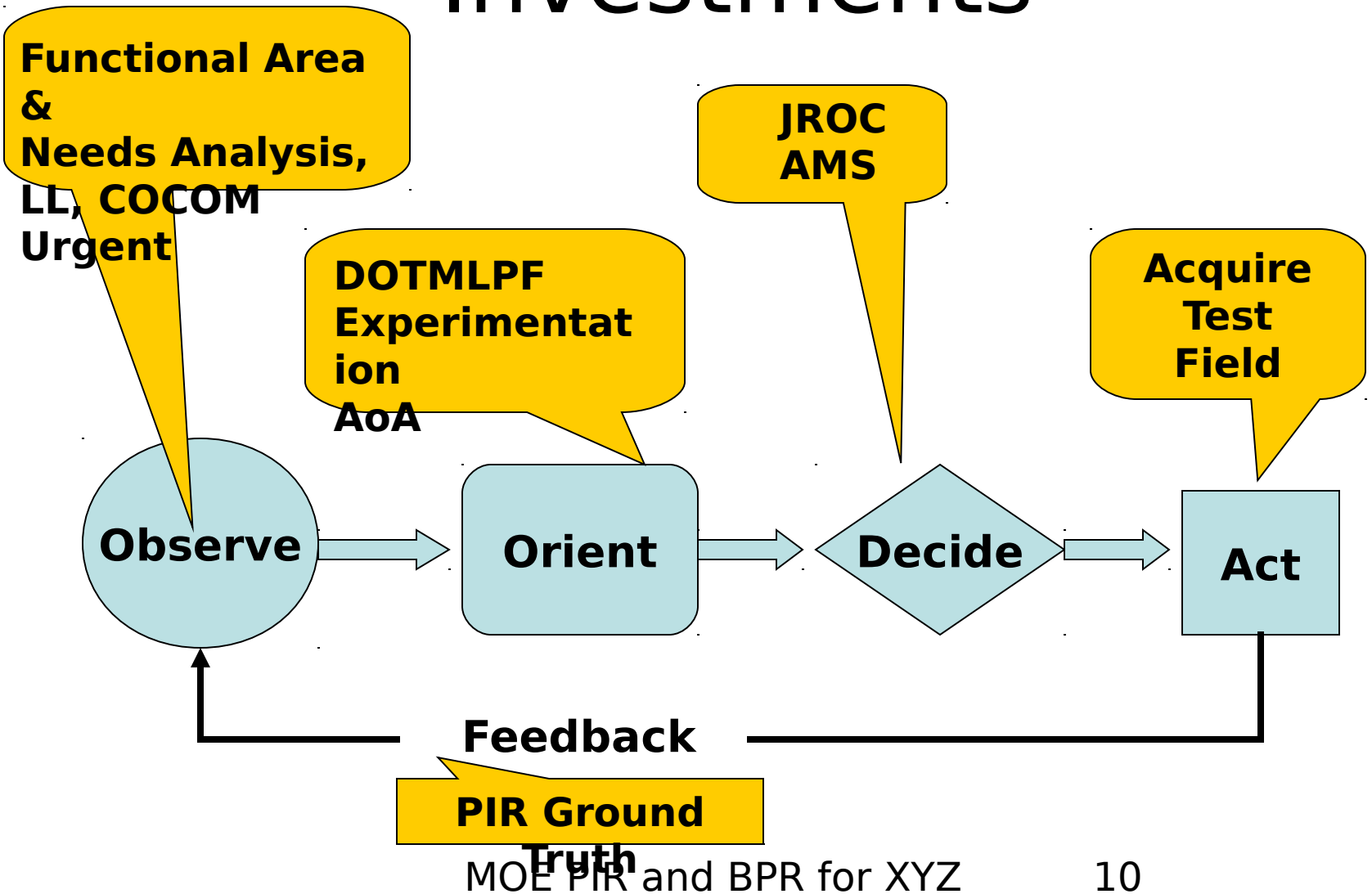
Regulatory Requirements

- JCIDS Manual assigns the respective FCBs and Domains responsibility for articulating capability attributes, metrics and measures and DOTMLPF during the FSA
- DODI 5000.2
  - Table E3.T1 cites information required for the Full-Rate Production decision, including the Post-Deployment Performance Review citing GPRA and 40USC 11313 (CCA)
  - Table E4.T1 “establish outcome-based performance measures linked to strategic goals”. “Redesign the process…”
- OMB Circular A-130 in section under “Evaluation”
  - Conduct post-implementation reviews of IT to validate estimated benefits and costs
- OMB Circular A-11 Exhibit 300, Table 1C requires submission of:
  - Performance Goals and Measures. Strategic goal(s) supported; Existing baseline; Planned and actual improvements and performance metrics

MOEs and PIR in the Life-cycle

- The following slides provide three views of MOEs and the PIR
  - **As an OODA Loop**
  - **In the investment life-cycle**
  - **In the JCIDS life-cycle**

OODA Loop in IT Investments



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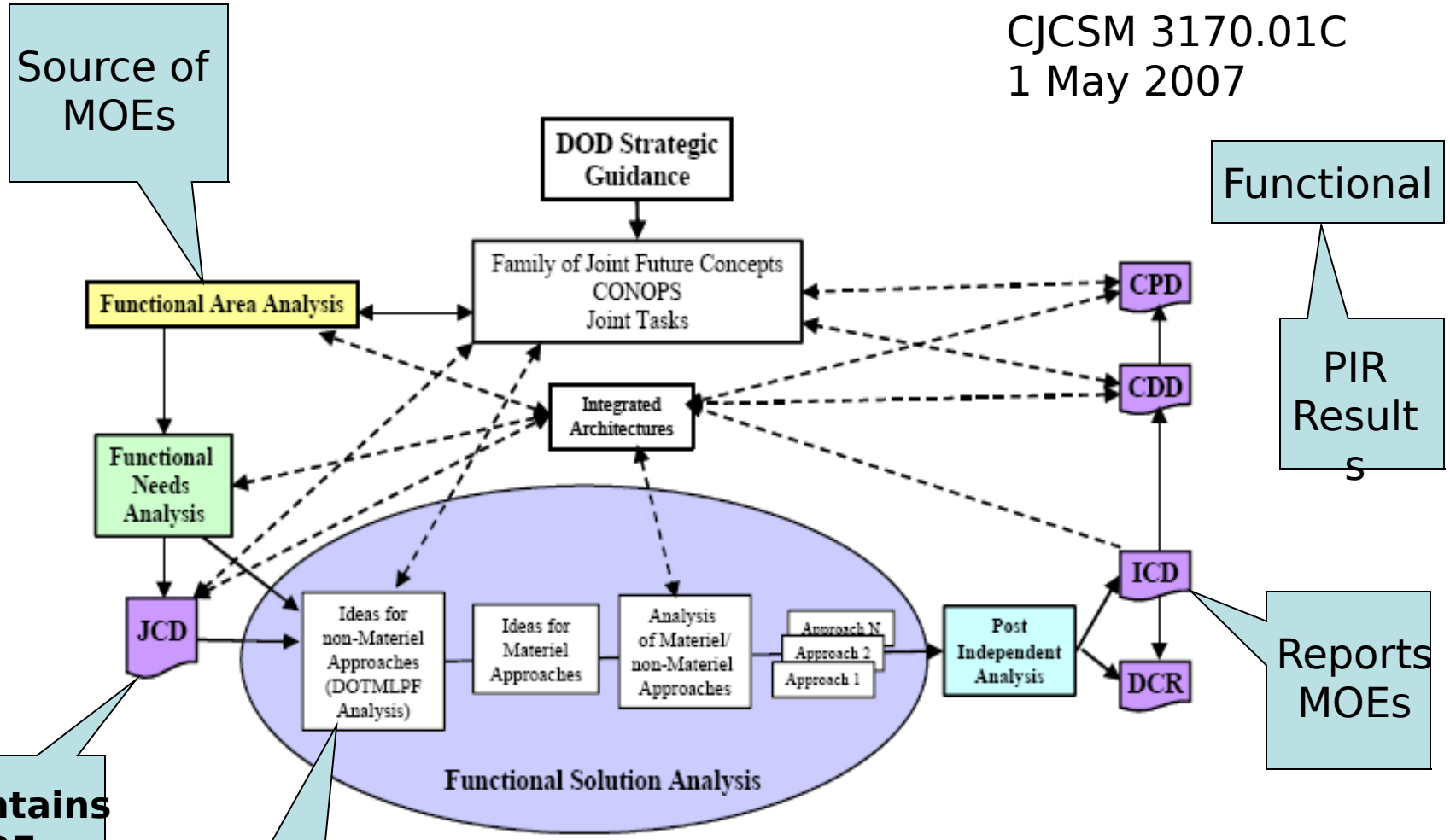
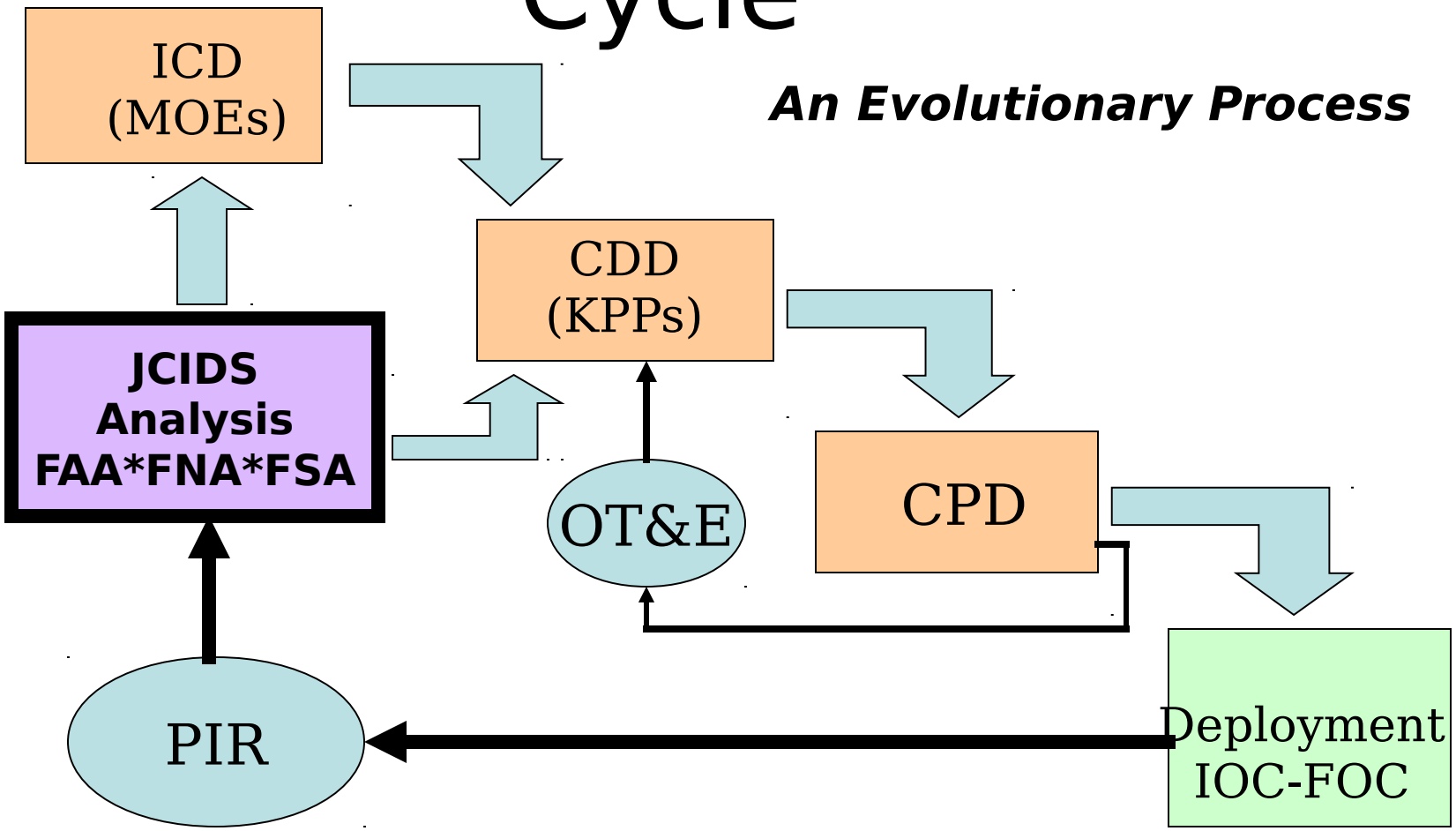


Figure A-2 CBA Flow and Resulting Documents

IT/NSS Investment Life Cycle



Sources of Outcome MOEs

- Derived from the Mission Need:
  - Functional Area Analysis
  - Joint Capability Document
  - Mission Need Statement
  - Initial Concept Document
- From Attributes, Metrics and sample measures from the Primary/Secondary FCB Functional Concept:
- Business Considerations:
  - Reduce cost (manpower, services, materiel)
  - Return on Investment (ROI)

MOE Examples

- Customer Satisfaction:
  - 80% of respondents assess category ABC as above threshold
- Economy:
  - Return ratio on Investment greater than 3
- Efficiency:
  - Maintenance manpower reduction of 50%
- Effectiveness:
  - Reduce IED events by 50%
  - Increase available aircraft employment to 80%
  - Decrease uncertainty of XYZ assessments by 30 %
  - Enable rapid detection and classification of short burst signals
  - Reduce manned aircraft requirements by 50%

NOT MOEs

- Programmatic measures
  - Cost, Schedule
- Solution dependent KPPs
  - Solution technical parameters
  - System outputs

Note

Some MOEs can be KPPs and are tested during OT&E

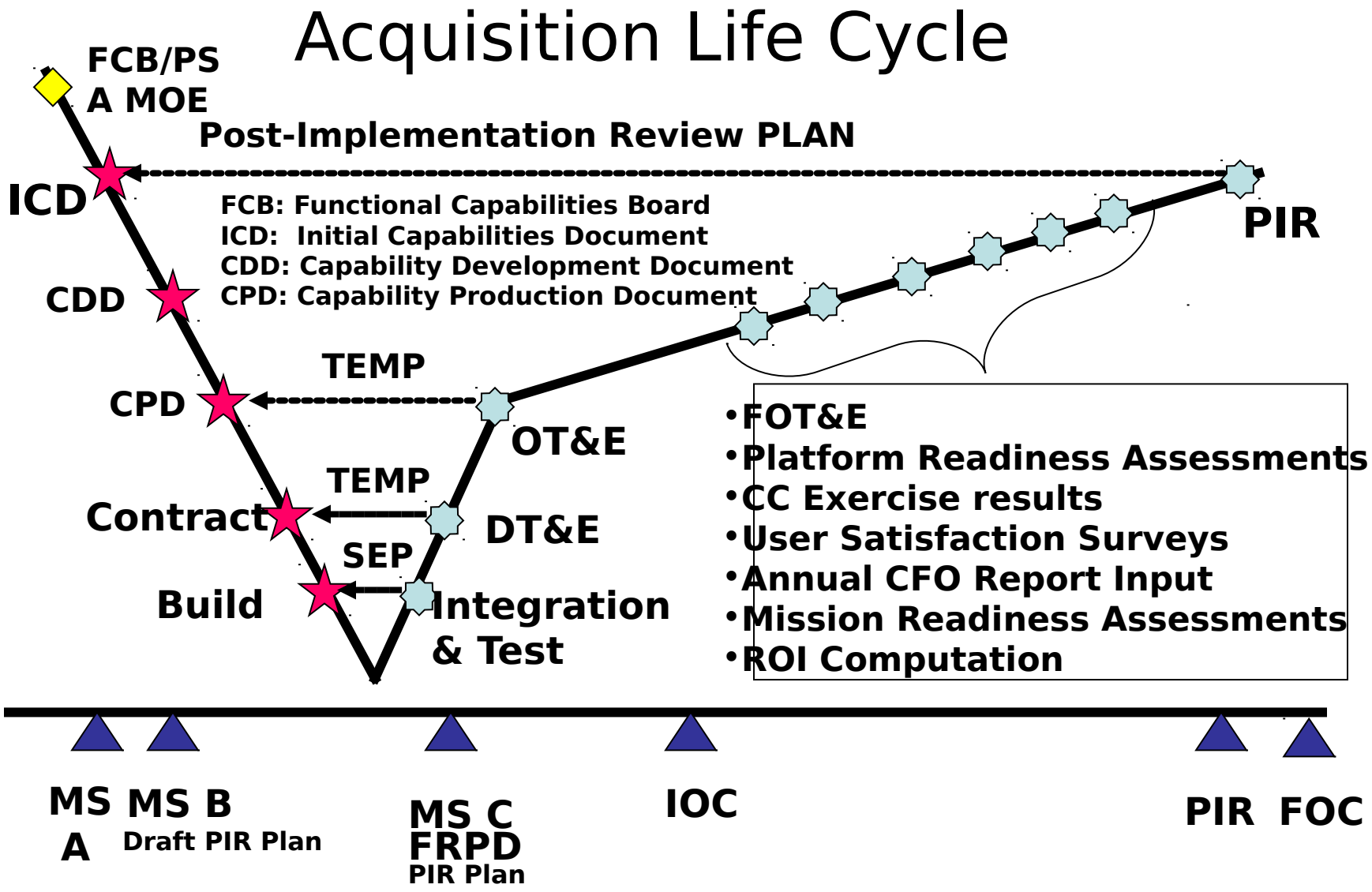
Planning and Implementing the PIR

FUNCTIONAL SPONSOR

- Start planning during MOE development
  - Affordability of proposed measures
- Gather as-is data for comparison
- Evolve PIR plan with final at FRPD
- Schedule the PIR
  - Make maximum use of scheduled events
- Assemble and Charter the PIR Team
  - Functional, Technical, CIO, Oversight
- Conduct the PIR
- Conduct the Analysis
- Prepare and Sign Report
  - Provide Recommendations for future increments

Program Manager ⇨ Support Functional Sponsor

Post Implementation Review (PIR) in the



Common Problems with PIR

- Multiple organizations with no common measurement standards
- Lack of documentation in ICD and/or business case
- Lack of Functional Sponsor ownership of PIR
- Sensitivities of participating organizations

Guidance and Practitioner's Resources

- Ch 7 of DAG
- JCS J-8 CBA User's Guide
- References and Examples in IT-CoP
- One-to-many discussions on IT-CoP-L

Questions?

Acronyms

- AMS: Acquisition Management System
- AoA: Analysis of Alternatives
- BPR: Business Process Reengineering
- C2: Command & Control
- CCA: Clinger-Cohen Act of 1996, formerly the Information Technology Management Reform Act of 1996
- CDD: Capability Development Document
- CIO: Chief Information Officer
- CPD: Capability Production Document
- DCR: DOTMLPF Change Request
- DOTMLPF: doctrine, organization. Training, materiel, leadership and education, personnel, facilities
- E-Gov: E-Government Act of 2002
- FAA: Functional Area Analysis
- FCB: Functional Control Board
- FNA: Functional Needs Analysis
- FOC: Full Operational Capability
- FSA: Functional Solution Analysis
- GPRA: Government Performance and Results Act 1993
- ICD: Initial Capabilities Document
- IOC: Initial Operational Capability
- IT: Information Technology
- JCD: Joint Capabilities Document
- JCIDS: Joint Capability Integration and Development System
- JROC: Joint Requirements Oversight Council
- KPP: Key Performance Parameter
- MOE: Measure of Effectiveness
- NSS: National Security System
- OMB: Office of Management and Budget
- OODA: Observe, Orient, Decide, Act
- OT&E: Operational Test & Evaluation
- PIR: Post Implementation Review